

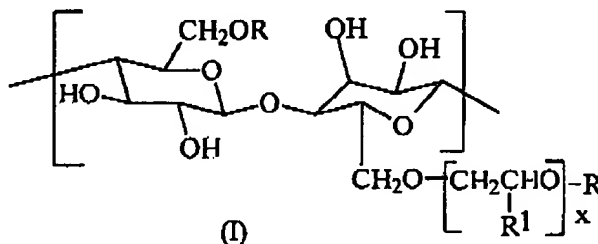
Appl. No.09/331,818

Response to Office Action dated May 20, 2003

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A laundry detergent composition which imparts fabric appearance benefits selected from pill/fuzz reduction, antifading, improved abrasion resistance and/or enhanced softness to fabrics and textiles laundered in aqueous washing solutions formed therefrom, which composition comprises:

- A) from about 1 to 80% by weight of a deterative surfactant;
- B) from about 0.1% to 80% by weight of a non-phosphorus organic or inorganic detergency builder which is a member selected from the group consisting of zeolite, combinations of zeolite plus and sodium carbonate, ~~zeolite plus~~ silicate, an alkali metal salt of a polyhydroxy sulfonate, or of a carboxylate or polycarboxylate builder selected from the group consisting of nitrilotriacetic acid, oxydisuccinic acid, mellitic acid, a benzene polycarboxylic acid, ~~citric~~ acid, a polyacetal carboxylate, and mixtures of said non-phosphorus builders;
- C) from about 0.1% to 8% by weight of a modified cellulose ether fabric treatment agent selected from the group consisting of:
- i) hydrophobically-modified, nonionic cellulose ethers which have a molecular weight of from about 10,000 to 2,000,000 and which have repeating substituted anhydroglucose units corresponding to the general formula:



wherein:

R is a combination of H and C<sub>8</sub>-C<sub>24</sub> with alkyl substitution of the anhydroglucose rings ranging in an amount of from about 0.1% to 5% by weight of the cellulose ether material;

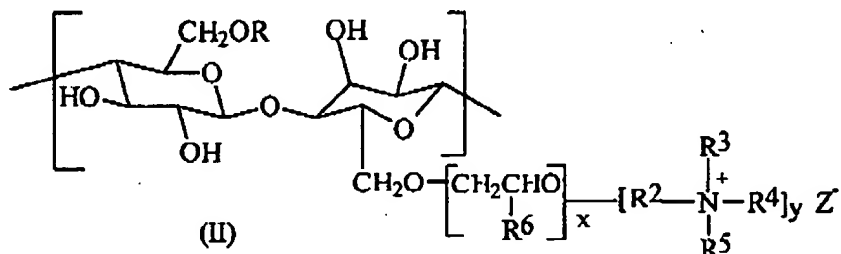
R<sup>1</sup> is H or methyl; and

x ranges from about 1 to 20;

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- ii) cationic quaternary ammonium cellulose ethers which have a molecular weight of from about 10,000 to 2,000,000 and which have repeating substituted anhydroglucose units corresponding to the general formula:



wherein:

R is H or C<sub>8-24</sub>, with alkyl substitution of the anhydroglucose rings ranging in an amount of from about 0.1% to 5% by weight of the cellulose ether material;

R<sub>2</sub> is CH<sub>2</sub>CHOHCH<sub>2</sub> or C<sub>8-24</sub> alkyl;

R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are each, independently, methyl, ethyl or phenyl;

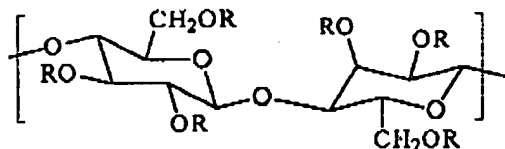
R<sub>6</sub> is H or methyl;

x ranges from about 1 to 20;

y ranges from about 0.005 to 0.5; and

Z is Cl<sup>-</sup> or Br<sup>-</sup>;

- iii) anionic cellulose ethers which have a molecular weight of from about 10,000 to 2,000,000 and which have repeating substituted anhydroglucose units corresponding to the general formula:



wherein:

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R is a combination of H and a) CH<sub>2</sub>COOA, and, optionally, b) C<sub>2-24</sub> alkyl, with alkyl substitution of the anhydroglucose rings ranging in an amount of from about 0.1% to 5% by weight of the cellulose ether material, and with the degree of carboxymethyl substitution of the anhydroglucose rings ranging from about 0.05 to 2.5; and wherein A is Na or K; and

iv) combinations of said nonionic, cationic and anionic cellulose ethers.

Claim 2 (Previously presented): A composition according to Claim 1 wherein

- A) the deterative surfactant comprises from about 5% to 50% by weight and is selected from anionic and nonionic surfactant materials; and
- B) the modified cellulose ether fabric treatment agent comprises from about 0.5% to 4% by weight of the composition and has a molecular weight ranging from 10,000 to 1,000,000.

Claim 3. (original): A composition according to Claim 2 wherein the modified cellulose ether fabric treatment agent is a hydrophobically-modified, nonionic material corresponding to Structural Formula No. I wherein

- a) R is a combination of H and C<sub>8</sub> to C<sub>16</sub> alkyl;
- b) R substitution of the anhydroglucose rings ranges from about 0.2% to 2% by weight of the cellulose ether;
- c) R<sup>1</sup> is H; and
- d) x ranges from about 1 to 10.

Claim 4 (cancel)

Claim 5 (withdrawn) A composition according to Claim 2 wherein the modified cellulose ether fabric treatment agent is a cationic material corresponding to Structural Formula No. II wherein

- a) R is C<sub>8</sub> to C<sub>16</sub> alkyl;
- b) R substitution of the anhydroglucose rings ranges from about 0.2% to 2% by weight of the cellulose ether;


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- c)  $R^2$  is C8 to C16 alkyl or is  $CH_2CH(OH)CH_2$ ;
- d)  $R^3$ ,  $R^4$  and  $R^5$  are each methyl;
- e)  $R^6$  is H;
- f) x ranges from about 1 to 10;
- g) y ranges from about 0.005 to 0.1; and
- h) Z is  $Cl^-$ .

Claim 6 (withdrawn) A composition according to Claim 5 wherein the cationic cellulose ether is selected from UCARE JR 30M, JR 400, JR 125, LR 400 and LK 400 and derivatives thereof.

Claim 7 (withdrawn) A composition according to Claim 2 wherein the modified cellulose ether fabric treatment agent is a anionic material corresponding to Structural Formula No. III wherein:

- 
- a) R is optionally  $C_2$  to  $C_{16}$  alkyl;
  - b) R substitution of the anhydroglucose rings ranges from about 0.2% to 2% by weight of the cellulose ether;
  - c) the degree of carboxymethyl substitution ranges from about 0.1 to 1.0; and
  - d) A is Na.

Claim 8 (withdrawn) A composition according to Claim 7 wherein the anionic cellulose ether is selected from CMC 7H, CMC 99-7M, CMC 99-7L, CMC D72, CMC D65 and CMC DHT.

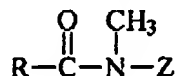
Claim 9 (previously presented): A composition according to Claim 2 in liquid form which comprises

- a) from about 5% to 50% by weight of a deterative surfactant selected from
  - i) sodium, potassium and ammonium alkylsulfates wherein the alkyl group contains from 10 to 22 carbon atoms;

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- ii) sodium, potassium and ammonium alkylpolyethoxylate sulfates wherein the alkyl group contains from 10 to 22 carbon atoms and the polyethoxylate chain contains from 1 to 15 ethylene oxide moieties;
- iii) polyhydroxy fatty acid amides of the formula

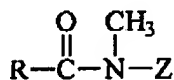


wherein R is a C<sub>9-17</sub> alkyl or alkenyl and Z is glyceryl derived from a reduced sugar or alkoxylated derivatives thereof;

- iv) alcohol ethoxylates of the formula R<sup>1</sup>(OC<sub>2</sub>H<sub>4</sub>)<sub>n</sub>OH wherein R<sup>1</sup> is a C<sub>10</sub>-C<sub>16</sub> alkyl group or a C<sub>8</sub>-C<sub>12</sub> alkyl phenyl group and n is from about 3 to 80; and
- v) combinations of these surfactants; and
- b) from about 1% to 10% by weight of a detergent builder component selected from said carboxylate and polycarboxylate builders.

Claim 10 (currently amended): A composition according to Claim 2 in granular form which comprises

- 
- a) from about 5% to 50% by weight of a deterative surfactant selected from
    - i) sodium and potassium alkylpolyethoxylate sulfates wherein the alkyl group contains from 10 to 22 carbon atoms and the polyethoxylate chain contains from 1 to 15 ethylene oxide moieties;
    - ii) sodium and potassium C<sub>9</sub> to C<sub>15</sub> alkyl benzene sulfonates;
    - iii) sodium and potassium C<sub>8</sub> to C<sub>18</sub> alkyl sulfates;
    - iv) polyhydroxy fatty acid amides of the formula



wherein R is a C<sub>9-17</sub> alkyl or alkenyl and Z is glyceryl derived from a reduced sugar or alkoxylated derivatives thereof; and

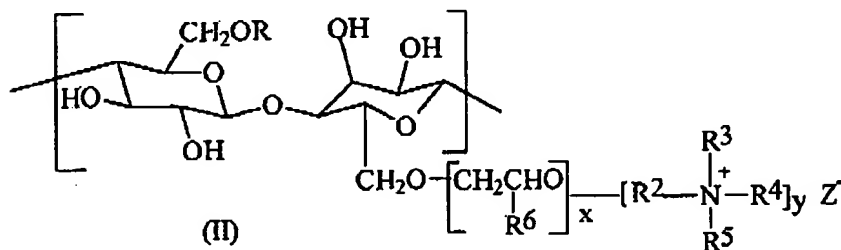
- v) combinations of these surfactants; and
- b) from about 1% to 50% by weight of a detergent builder selected from the group consisting of, zeolite, combinations of zeolite plus and sodium carbonate, zeolite plus silicate, oxydisuccinates, citrates, and mixtures thereof.

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Claim 11 (withdrawn) A laundry detergent composition which imparts fabric appearance benefits selected from pill/fuzz reduction, antifading, improved abrasion resistance and/or enhanced softness to fabrics and textiles laundered in aqueous washing solutions formed therefrom, which composition comprises:

- A) from about 1% to 80% by weight of a deterative surfactant;
- B) from about 0.1% to 80% by weight of an organic or inorganic detergency builder;
- C) from about 0.1% to 8% by weight of a modified cellulose ether fabric treatment agent selected from the group consisting of:
  - i) cationic quaternary ammonium cellulose ethers which have a molecular weight of from about 10,000 to 2,000,000 and which have repeating substituted anhydroglucose units corresponding to the general formula:



wherein:

R is H or C<sub>8-24</sub>, with alkyl substitution of the anhydroglucose rings ranging in an amount of from about 0.1% to 5% by weight of the cellulose ether material;

R<sub>2</sub> is CH<sub>2</sub>CHOHCH<sub>2</sub> or C<sub>8-24</sub> alkyl;

R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are each, independently, methyl, ethyl or phenyl;

R<sub>6</sub> is H or methyl;

x ranges from about 1 to 20;

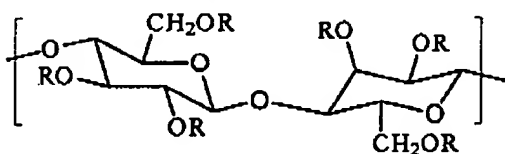
y ranges from about 0.005 to 0.5; and

Z is Cl<sup>-</sup> or Br<sup>-</sup>;

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- ii) anionic cellulose ethers which have a molecular weight of from about 10,000 to 2,000,000 and which have repeating substituted anhydroglucose units corresponding to the general formula:



(III)

wherein:

R is a combination of H and a)  $\text{CH}_2\text{COOA}$ , and, optionally, b) C2-24 alkyl, with alkyl substitution of the anhydroglucose rings ranging in an amount of from about 0.1% to 5% by weight of the cellulose ether material, and with the degree of carboxymethyl substitution of the anhydroglucose rings ranging from about 0.05 to 2.5; and wherein A is Na or K; and

- iii) combinations of said cationic and anionic cellulose ethers.